

cont.

motor.

Claim 3. (Amended) [A] The motor as claimed in claim 1, which is a synchronous motor.

Claim 4. (Amended) A drive system for a locomotive or motor coach, comprising a motor including [as claimed in claim 1, 2 or 3] a winding, wherein said winding includes insulation comprising at least two semiconducting layers, each layer providing a substantially equipotential surface, solid insulation between said semiconducting layers and a regulator device connected thereto.

Claim 5. (Amended) [A] The system as claimed in claim 4, wherein said regulator device is a semiconductor ac/ac converter.

Claim 6. (Amended) A drive system for a locomotive or motor coach, comprising a transformer having a winding, a thyristor bridge supplied by [the] a transformer, and a dc/ac converter supplied by [the] a thyristor bridge and arranged to supply power to a traction motor, wherein [characterized in that] said winding includes insulation [consisting of] including at least two semiconducting layers, each layer providing a substantially equipotential surface, and solid insulation between said semiconducting layers.

Claim 7. (Amended) A drive system for a locomotive or motor coach, comprising a rotating converter having a winding and arranged to supply power to a traction motor, wherein [characterized in that] said winding includes insulation consisting of at least two semiconducting layers, each layer providing a substantially equipotential surface, and solid insulation between said semiconducting layers.

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Claim 8. (Amended) [A] The system as claimed in claim 7, wherein the rotating converter comprises a single machine having both motor and generator functions.

Claim 9. (Amended) [A] The system as claimed in claim 8, wherein the rotating converter is a phase converter.

Claim 10 (Amended) [A] The system as claimed in claim 7, [8 or 9,] wherein the rotating converter supplies a regulator device.

Claim 11. (Amended) [A] The system as claimed in claim 7, [8 or 9,] wherein the rotating converter supplies a rectifier bridge which supplies a dc/ac converter.

Claim 12. (Amended) [A] The system as claimed in claim 7, [8 or 9,] wherein the rotating converter supplies an ac/ac frequency converter.

Claim 13. (Amended) [A] The motor or system as claimed in claim 1, wherein [any preceding claim, characterized in that] at least one of said layers has substantially the same coefficient of thermal expansion as the solid insulation.

Claim 14. (Amended) A traction motor or drive system [as claimed in any preceding claim, characterized in that the flux paths in the] including at least one of a motor transformer or rotating converter including a core of a magnetic circuit having flux paths in the motor transformer or rotating converter [consists of] includes at least one of laminated sheet plate, [and/or] rough forged iron, [and/or] cast iron and [or] powder-based iron.

Claim 15. (Amended) [A] The motor or system as claimed in claim 14, wherein [any preceding claim, characterized in that] the innermost semiconducting layer [(32)] which surrounds at least one conductor [(31)] is at substantially the same potential as the

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conductor[(s) (31)].

Claim 16, (Amended) [A] The motor or system as claimed in [any preceding claim, characterized in that] claim 14, wherein the outer semiconducting layer [(34)] is connected to a selected potential.

Claim 17. (Amended) [A] The motor or system as claimed in claim 16, wherein [characterized in that] the selected potential is earth potential.

Claim 18. (Amended) [A] The motor or system as claimed in [any preceding claim, characterized in that] claim 14, wherein a current-carrying conductor of the winding comprises a plurality of strands, only a few of the strands not being insulated from each other.

Claim 19. (Amended) [A] The motor or system as claimed in [any preceding claim, characterized in that] claim 14, wherein said winding[(s)] and [also] permanently insulated connection conductors for high tension current between the system units are produced using a cable [(6)] with solid insulation for high voltage and comprising at least two semiconducting layers [(32, 34)], and [also] strands [(36)] which may be insulated or uninsulated.

Claim 20. (Amended) [A] The motor or system as claimed in claim 19, wherein [characterized in that] the high-voltage cables [(6)] have a conductor area of between 10 and 3000 mm and have an outer cable diameter of between 6 and 250 mm.

Claim 21. (Amended) [A] The motor or system as claimed in [any preceding claim, characterized in that] claim 14, wherein said winding is designed to carry a rated voltage of at least 10 kV